Air Monitor Corp -
IBAM - Individual Burner Air Meter
Veltron II transmitter and purge control.

Advantages:
1) Have been installed in over 1000 burners, standard equipment on Riley CCV burners past 9 years. Have also tested B&W XCL Dual Register burners, and Foster Wheeler low NOx.
2) Air Monitor has proven 3rd generation air purging system
3) We have Air Monitor installed on PA Flow and overfire air with good results
4) Less pitch and yaw angle sensitivity
5) Stainless material more robust to temperature
6) Have done & will verify extensive wind tunnel testing, 3/4 scale of burner design, to verify location.
7) Most accurate probe/transmitter combination
8) Air Monitor has done burners from 30 to 70 inches in diameter.
9) Recommends ambient wind tunnel testing over CFD, CFD has many assumptions, although wind tunnel testing is not at windbox temperature. Can do both CFD and wind tunnel testing.
10) Gave additional 10% discount = $308K*0.1 = $30.8K

Disadvantages:
1) Will cost $70K above the base ABT bid with Eastern Instruments. $270,000 total
2) Requires purge air which increases cost.
3) Proposing only 2 probes/ burner, rather than 4, which lowers accuracy some. Additional pitots cost $630 each x 48 = $30K.
4) Separate inner flow additional $47,760.
This is for 1 IBAM probe, 3 way ball valves, local indicating gauge in NEMA 4X w/ window.

References:

LG&E, Coleman Station, Daryl Chin: 270-993-1575, IBAMs on 3 units, windbox temps 550 to 625F, Air Monitor worked hard to solve problems with burners and sliding hood position. Used B&W XCL burners, installed 2001, sliding hood controls total air, lots of turbulence, pitch, yaw. Use polynomial equation to correct per wind tunnel testing. Using autopurge. Have Rexa hydraulic actuators on each burner with position feedback $19K each. Driving force Nox reduction, combustion optimization, CO grid, Installed a Neuco, optimizer, mixed results, but think it will pay off long term.

AEP, Sporn Station, JJ Letcavits: 614-223-3287 IBAM's on several units 100 to 1300 MW B&W opposed wall. Used for relative air flow, setting up and initial commissioning. Have Rosemont transmitters. Plan to get online feedback control including pf coal flow measurement in each coal pipe. Have Jordan linear drives to modulate. Very happy with Air Monitor.

AEP, Mountaineer Plant, Brent Watts: 304-882-2151 IBAM's work really good. Have used Air

Monitor since 1993 with only one failure. Use Air Monitor to measure overfire air port as well. Burners have actuators, operators manually adjust shroud remotely. Have Rosemont transmitters, but wish they were Air Monitor for more accuracy. Probes will plug up in a few months without purge.

Pacific Corp - Bonanza - Dan Howell, Has ABT burners, wish they could measure air flow, but can't in their snail shell swirl design. Have limitorque actuators. Daily ramp from 380 to 480 MW.

AEP - Pirky Station - Kent Randall - 318-673-3813 Had Verabar system that was inherently plug resistant, but it plugged and they had to install an Air Monitor purge system and transmitter. Also have tried an Air Monitor with no purge, but it plugs Likes the Air Monitor system. Have a problem with control system interface. Dampers tend to drift during the 2 minute purge time. Need to interface purge with the control system, have control system in manual during the purge or have control system initiate purge.